Utility Patent Application

CONFIDENTIAL INFORMATION

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TOOL ORGANIZER MOUNTED TO A VEHICLE LIFT RACK

RELATED APPLICATIONS

This application is a Continuation-In-Part of U.S. Application No. 09/769,656, filed on January 25, 2001, which claimed the benefit of U.S. Provisional Application No. 60/174,986, filed on January 7, 2000.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to organizers and tool caddies and, more particularly, to a tool organizer specifically adapted to be supported by the lift arms of a conventional vehicle lift rack in an automotive garage.

2. Description of the Related Art

As anyone who performs a lot of mechanical work will attest, nothing beats having the proper tool for a job. The proper tool can save time, save money, produce a higher quality job, reduce damage to equipment, and provide for the increased safety of the worker. However, many times keeping track of such a quantity of tools can become overwhelming. While toolboxes and storage bins go a long way to helping this situation during storage of the tool, it does not help while the tool is being utilized. Here the tool can become easily misplaced, dropped, roll under something or become damaged. Nowhere is this more evident than when working under a motor vehicle. Such locations are often cramped and not very well illuminated. It becomes even more important to keep track of a tool under these conditions.

Consequently, a need exists for a means by which tools and/or parts can be held and organized while working under a motor vehicle held upon a vehicle lift rack in an automotive garage.

SUMMARY OF THE INVENTION

Therefore, it is an object of the invention to indicate a device of the type disclosed above which avoids the disadvantages inherent in the state of the art. In particular, the device is to be a tool box caddy with extending arms/hangers

for suspending the caddy from the rails of a vehicle lift.

Briefly described according to one embodiment of the present invention, an apparatus is provided that attaches to a vehicle lift while working under motor vehicles. It has a tray area for holding such items as parts or tools. Along the front is an area with multiple holes of approximately three-quarters to one inch in diameter for holding items such as screwdrivers. Two "U" shaped arms protrude from the rear of the tray to attach the tray to the vehicle lift. The arms simply hook over the rack and the weight of the invention holds it into place. The arms are adjustable so that they may fit any size rack on a vehicle lift. Finally, located on the side of the device is a beverage holder that can be used to hold a cup of coffee or a can of soda.

Advantages of the present invention are numerous, and include the ability to keep all necessary items close at hand, saving time and also aiding in safety, as the user will not accidentally bang or bump into objects while groping for a tool or part. The use of the present invention allows automotive mechanics to keep all parts, tools, and other necessities handy while working under a motor vehicle on a vehicle lift.

BRIEF DESCRIPTION OF THE DRAWINGS

The advantages and features of the present invention will become better understood with reference to the following more detailed description and claims taken in conjunction with the accompanying drawings, in which like elements are identified with like symbols, and in which:

FIG. 1 is a perspective view of vehicle lift rack mounted tool organizer according to the preferred embodiment of the present invention;

FIG. 2 is a top view thereof;

FIG. 3a is a side elevational view thereof; and

FIG. 3b is a side elevational view thereof shown with an optional storage drawer attached.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The best mode for carrying out the invention is presented in terms of its preferred embodiment, herein depicted within Figures 1 through 3a.

1. Detailed Description of the Figures

Referring now to **FIG. 1**, a tool organizer mounted to a vehicle lift rack **10** (hereinafter "tool organizer") is shown in accordance with a preferred embodiment of the present invention. The tool organizer **10** is mounted for use to the support arms **12** of an otherwise conventional vehicle lift rack **14**. The

organizer **10** includes attachment means **16**, shown herein a pair of L-shaped support hooks, for grasping the rack arm **12** in a manner that allows the organizer **10** to be supported through gravity impingement, without the necessity for permanent fasteners penetrating the hooks **16** and/or the support arms **12**. In this manner, it is anticipated that the hooks will be adjustable in length, generally from between three (3) inches to five and one-half (5.5) inches in order to accommodate various widths of lift racks and the corresponding arms commercially available, although other variations in length of certainly envisioned. Extending cantilever outward from the support means **16** in a manner that hangs below the horizontal level of the rack arm **12** is a main storage volume **20** formed by a base **22** and upstanding walls **24**, **26**, **28** and **30**, respectively. A selectively articulating lid **32** (opening and closing) encloses the storage volume **20** via a hinge **34** and may include an optional key or combination lock **36** for securing the contents thereof. The storage volume **20** has an anticipated use for holding various tools, parts, fasteners, and other similar mechanical devices used during the analysis, maintenance, and repair of automobiles.

The upstanding walls **24**, **26**, **28** and **30** are more particularly identified as a front wall **24** opposite a rear wall **28**, with a first sidewall **26** opposite a second sidewall **30**, the first sidewall **26** and second sidewall **30** intermediately disposed

between the front wall **24** and rear wall **28**. In one embodiment of the present invention, the top portion of walls **24**, **26**, **28** and **30** are substantially identical in height, thereby forming a general orthogonal box-like configuration. In another embodiment of the present invention, the top portion of walls **26** and **30** are similarly inclined from the junction of front wall **24** and sidewalls **26** and **30** upward toward the junction of rear wall **28** and sidewalls **26** and **30**. In this embodiment, rear wall **28** has a greater profile than front wall **24**, thereby facilitating the inclination from front to rear. The desirability of this embodiment stems from the convenience and accessibility to the storage volume **20** with a lower profile front wall **24** as compared to the taller profile rear wall **28**, thereby allowing a user to more easily view into the storage volume **20** and locate a specific tool, part or other device quickly and efficiently, while also reducing the opportunity for injury to the user or damage to the tool, part, other device or the tool organizer **10**, respectively. In another embodiment of the present invention, at least one wall **24**, **26**, **28** and **30** includes magnetic properties for placement of metallic objects thereto for temporary storage or support. It is envisioned that the preferred wall of magnetization is either of the sidewalls **26** or **30**, thereby providing the most convenient and unobtrusive location for temporary placement of a metallic object, including such metallic objects like screws, bolts, lugs, caps or other metallic objects found on or used with automobiles.

Referring to **FIG. 2** and **3a**, a variety of means for storing, supporting and holding tools, parts and other devices are anticipated as being elements of the best mode of the present invention. The means include support of pneumatic driving tools **38**, support of mechanical hand tools (i.e., a screw driver) **40a** and **40b**, means for supporting cups **42**, means for supporting towels or rags **44**, and means for other similarly suitable tools, parts and other devices necessary for maintenance or repair of automobiles in an automotive garage. As indicated in the figures, means for support of a pneumatic driving tool **38** comprises a U-shaped ring affixed to an external portion of at least one sidewall **26** or **30**, conveniently sized to accommodate pneumatic driving tools of the variety including torque wrenches or other similarly suitable devices used for removing or replacing lugs, screws, bolts or other threaded devices. Means for supporting mechanical hand tools comprise a plurality of intermediate apertures **40a** and a plurality of small apertures **40b** formed in a support plate **46** projected from the front of the tool organizer **10** and co-extensive with the base **22**. The plurality of intermediate apertures **40a** are sized to accommodate larger hand tools, including hammers, ratchets, hacksaws, and other similarly suitable hand tools. The plurality of small apertures **40b** are sized to accommodate intermediate to smaller hand tools, including screw drivers, pliers, cutting snips or sheers, and other similarly suitable hand tools. Means for supporting cups **42** comprise at

least one large aperture **42** also formed in the support plate **46**, sized to accommodate STYROFOAM®, plastic or glass cups supporting a beverage of the user or for holding selected parts, such as screws, bolts, nuts, wiring, or other similar items used on or in an automobile. Means for supporting towels and/or rags **44** are also provided, comprising an annular ring **44** secured to the tool organizer **10** (shown in **FIG. 2** as secured to tool organizer **10** via one of the small apertures **40b**, although other points of securement are envisioned).

FIG. 3b shows an alternate embodiment of the present invention, in which a slidably retained storage drawer **48** is provided along the lower surface of the tool organizer **10**, thereby allowing for additional storage. The face of the storage drawer **48** is co-extensive with the outward (anterior) margin of the support plate **46**, and includes a handle for easily grasping for selectively opening and closing the storage drawer **48**.

The tool organizer **10** is envisioned as available in a variety of colors, particularly a yellow to gold coloring, which would include PANTONE® color identification system for "yellow" from "Process Yellow", PMS 100-102, PANTONE® Yellow, PMS 106-109, PMS 113-116, PMS 120-123, PMS 1205, 1215, 1225 and 1235, and PMS 127-130. The universal PANTONE® color system for "gold" is also envisioned as suitable for visual indication and location of the tool organizer **10**. In an automotive garage environment, a majority of the

apparatuses and devices used are provided in dark colors, such as royal to navy blue and black, and mostly due to the aesthetic illusion of blue and black not being as easily dirtied in that environment. As such, the environment is inherently dark, and for this reason, the tool organizer **10** is provided in yellow to gold for allowing a user to easily view the tool organizer **10** and retrieve the necessary tools or items as required. Alternatively, illumination may be incorporated into the tool organizer **10** via an integral light or other similar means.

2. Operation of the Preferred Embodiment

In operation, the present invention is to aid in the analysis, maintenance, and repair of motor vehicles. Currently, such activities are generally performed by lifting the motor vehicle overhead by use of a hydraulic lift rack. To aid in this activity, the present invention can be simply slide mounted over the lift rack arms. From there, a service technician can store and support tools, fasteners, parts, and the like in a convenience fashion.

As designed, a device embodying the teachings of the present invention is easily applied. The foregoing description is included to illustrate the operation of the preferred embodiment and is not meant to limit the scope of the invention. As one can envision, an individual skilled in the relevant art, in conjunction with

the present teachings, would be capable of incorporating many minor modifications that are anticipated within this disclosure. Therefore, the scope of the invention is to be broadly limited only by the following claims.